

**ME589/Geoc589 Advanced Topics—Geology of Critical Minerals (3 credits)**  
**Spring 2022**

Midterm

Due March 15, 2022 by e-mail [virginia.mclemore@nmt.edu](mailto:virginia.mclemore@nmt.edu) (NAME)

1. What is the difference between a mineral deposit and an ore deposit? Provide examples. 15%
2. Why is rhenium considered a critical mineral? 15%
3. What are the predominant types of REE deposits? Which types of deposits are currently in production? 15%
4. Why is copper not a critical mineral in the U.S. but it is in Japan? 15%
5. What are some challenges in producing strategic and critical minerals? 15%
6. Why are written sampling plans important? 15%
7. Summarize your class project due at the end of the semester (oral and written report) for this class in 1-2 paragraphs. List team members. 10%

Be sure to cite your references and sources. You may work together on this midterm but each student is responsible for answering these questions in their own words.